

**Louisiana Department of Environmental Quality (LDEQ)  
Office of Environmental Services**

**STATEMENT OF BASIS**

**Shell Pipeline Company LP  
Shell Pipeline Co LP - Gibson Station  
Gibson, Terrebonne Parish, Louisiana  
Agency Interest Number: 33030  
Activity Number: PER20080001  
Proposed Permit Number: 2880-00060-V1**

**I. APPLICANT**

**Company:**

Shell Pipeline Co LP - Gibson Station  
PO Box 2648  
Houston, Texas 77252-2163

**Facility:**

Shell Pipeline Co LP  
5317 Bayou Black Dr  
Gibson, Terrebonne Parish, Louisiana  
Approximate UTM coordinates are 700.158 kilometers East, 3279.523 kilometers North,  
Zone 15

**II. FACILITY AND CURRENT PERMIT STATUS**

Gibson Station is a crude oil pipeline facility. Crude oil enters the facility via pipeline, truck, and barge. The crude oil is stored in floating roof tanks then transferred to sales via pipeline and barge. This facility has an annual crude oil throughput of 350,400,000 barrels.

Shell Pipeline Co LP - Gibson Station is a designated Part 70 source. Part 70 permits which have been issued to the operating units within the complex include:

Permit No.	Unit or Source	Date Issued
2880-00060-V0	Shell Pipeline Co LP - Gibson Station	July 22, 2003

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### **III. PROPOSED PROJECT/PERMIT INFORMATION**

#### **Application**

A permit application was submitted on December 20, 2007, requesting the renewal and modification of a Part 70 operating permit for the Shell Pipeline Co LP - Gibson Station.

#### **Project**

With this renewal and modification, Shell Pipeline proposes to include emissions from tank landing event which will be limited to only two events per year (Emission Source TLO) for a duration of 192 hours per year, add emissions from truck loading operations involving jet fuel (Emission Source 012), update permitted emissions based on updated emission factors, and reconcile insignificant and General Condition XVII activities currently present including the addition of an jet fuel tank and helicopter fueling activities.

#### **Proposed Permit**

Permit 2880-00060-V1 will be the renewal and modification of Part 70 operating permit 2880-00060-V0 for the Shell Pipeline Co LP - Gibson Station.

#### **Permitted Air Emissions**

Estimated emissions in tons per year are as follows:

Pollutant	Before	After	Change
PM <sub>10</sub>	0.02	0.02	---
SO <sub>2</sub>	0.02	0.02	---
NO <sub>x</sub>	0.28	0.28	---
CO	2.33	2.33	---
VOC*	129.45	140.48	+ 11.03

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**\*VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):**

Pollutant	Before	After	Change
Benzene	0.515	0.546	+ 0.031
Toluene	1.016	1.081	+ 0.065
Ethylbenzene	0.195	0.213	+ 0.018
Xylenes	1.174	1.256	+ 0.082
n-Hexane	1.547	1.621	+ 0.074
1,3-Butadiene	0.001	< 0.001	Neg.
Formaldehyde	0.003	< 0.001	- 0.003
Acetaldehyde	0.003	< 0.001	- 0.003
2,2,4-Trimethylpentane	0.002	0.004	+ 0.002
Cumene	---	0.002	+ 0.002
Naphthalenes	---	< 0.001	Neg.
Acrolein	---	< 0.001	Neg.
Total	4.456	4.723	+ 0.267

Three crude oil types with different Reid vapor pressures enter the station. Because of the changing vapor pressures, three groups of tanks have been dedicated to each type of oil service. A throughput limitation has been placed on the groups of tanks and the barge loading to establish permitted emission rates that are closer to the maximum anticipated actual emissions, while retaining flexibility for source operations.

Emission Point No.	Throughput Limitation
1 & 3 (Crude Oil Storage Tanks)*	167.9 MM bbl/yr
2 (Crude Oil Storage Tank)	94.9 MM bbl/yr
106, 107, 108, 109, & 9301 (Crude Oil Storage Tanks)**	87.6 MM bbl/yr
Total Throughput	350.4 MM bbl/yr
5 – Barge Loading	840,000 bbl/yr

\* Emissions are included in Storage Cap 1.

\*\*Emissions are included in Storage Cap 2.

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#### IV REGULATORY ANALYSIS

The applicability of the appropriate regulations is straightforward and provided in the Specific Requirements section of the proposed permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are also provided in the Specific Requirements section of the proposed permit.

##### Applicability and Exemptions of Selected Subject Items

Explanation for Exemption Status or Non-Applicability of a Source		
ID No:	Requirement	Notes
UNF 1 Gibson Station	NESHAP Subpart A – General Provisions. [40 CFR 63.1]	DOES NOT APPLY. Diesel and Gasoline engines are located at an area source of HAPs.
EQT 5 Barge Loading	Control of Emissions of Organic Compounds – Marine Vapor Recovery [LAC 33:III.2108.A]	DOES NOT APPLY. Uncontrolled VOC emissions < 100 tpy.
EQT 6 Diesel Engine	Emission Standards for Sulfur Dioxide [LAC 33:III.1502.A]	DOES NOT APPLY. Potential SO <sub>2</sub> emissions are < 5 tpy.
	NSPS Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines [40 CFR 60.4200]	DOES NOT APPLY. Diesel engine was not constructed, modified, or reconstructed after July 11, 2005.
	NESHAP Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [40 CFR 63.6585]	DOES NOT APPLY. Engine is an existing emergency stationary RICE.
EQT 7 Gasoline Engine	Emission Standards for Sulfur Dioxide [LAC 33:III.1502.A]	DOES NOT APPLY. Potential SO <sub>2</sub> emissions are < 5 tpy.
	NSPS Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines [40 CFR 60.4200]	DOES NOT APPLY. Gasoline engine was not constructed, modified, or reconstructed after June 12, 2006.

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<b>Explanation for Exemption Status or Non-Applicability of a Source</b>		
<b>ID No:</b>	<b>Requirement</b>	<b>Notes</b>
	NESHAP Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [40 CFR 63.6585]	DOES NOT APPLY. Engine is an existing emergency stationary RICE.
EQT 13 - 16 Crude Oil Tanks	NSPS Subpart K – Standards of Performance for Storage Vessels for Which Construction, Reconstruction, or Modification Commences after June 11, 1973 and Prior to May 19, 1978. [40 CFR 60.110]	DOES NOT APPLY. Storage tanks were not constructed, modified, or reconstructed after June 11, 1973.
	NSPS Subpart Ka – Standards of Performance for Storage Vessels for Petroleum liquids for Which Construction, Reconstruction, or Modification Commences after May 18, 1978 and Prior to July 23, 1984. [40 CFR 60.110a]	DOES NOT APPLY. Storage tanks were not constructed, modified, or reconstructed after June 11, 1973.
	NSPS Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984. [40 CFR 60.110b]	DOES NOT APPLY. Storage tanks were not constructed, modified, or reconstructed after June 11, 1973.
EQT 19 Truck Loading	Volatile Organic Compounds – Loading [LAC 33:III.2107.A]	DOES NOT APPLY. Material loaded has a true vapor pressure < 1.5 psia and throughput is < 20,000 gallons/day.

**Prevention of Significant Deterioration/Nonattainment Review**

Not applicable.

**Streamlined Equipment Leak Monitoring Program**

Not applicable.

**MACT Requirements**

Not applicable.

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**Air Quality Analysis**

Not required.

**General Condition XVII Activities**

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to the Section VIII – General Condition XVII Activities of the proposed permit.

**Insignificant Activities**

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to the Section IX – Insignificant Activities of the proposed permit.

**V. PERMIT SHIELD**

Not applicable.

**VI. PERIODIC MONITORING**

Not applicable.

**VII. GLOSSARY**

Carbon Monoxide (CO) – A colorless, odorless gas, which is an oxide of carbon.

Maximum Achievable Control Technology (MACT) – The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

Hydrogen Sulfide (H<sub>2</sub>S) – A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the reaction of acids on metallic sulfides, and is an important chemical reagent.

New Source Review (NSR) – A preconstruction review and permitting program applicable to new or modified major stationary sources of air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C (“Prevention of Significant Deterioration of Air Quality”) and D (“Nonattainment New Source Review”).

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Nitrogen Oxides (NO<sub>x</sub>) – Compounds whose molecules consist of nitrogen and oxygen.

Organic Compound – Any compound of carbon and another element. Examples: Methane (CH<sub>4</sub>), Ethane (C<sub>2</sub>H<sub>6</sub>), Carbon Disulfide (CS<sub>2</sub>)

Part 70 Operating Permit – Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit:  $\geq 10$  tons per year of any toxic air pollutant;  $\geq 25$  tons of total toxic air pollutants; and  $\geq 100$  tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM<sub>10</sub> – Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) – The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Sulfur Dioxide (SO<sub>2</sub>) – An oxide of sulfur.

Sulfuric Acid (H<sub>2</sub>SO<sub>4</sub>) – A highly corrosive, dense oily liquid. It is a regulated toxic air pollutant under LAC 33:III.Chapter 51.

Title V Permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) – Any organic compound, which participates in atmospheric photochemical reactions; that is, any organic compound other than those, which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.